

Wohlwend, K. E., Buchholz, B. A., & Medina, C. L. (2018). Playful literacies and practices of making in children's imaginaries. In K. A. Mills, A. Stornaiuolo, A. Smith, & J. Z. Pandya (Eds.), *Handbook of Writing, Literacies, and Education in Digital Cultures* (pp. 136-147). New York, NY: Routledge.

## **Playful Literacies and Practices of Making in Children's Imaginaries**

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In this chapter, we examine literacy research that looks beyond print to recognize the action texts in young children's media production and to better understand the mutually constitutive relationships among play and making in contemporary childhoods. How do these areas merge in children's classroom productions in digital puppetry, toymaking, drama, animation, filmmaking, and crafting of artifacts? Our focus is on shared imaginative production in classroom cultures to understand play and making as powerful literacies with value in their own right, producing unapologetically printless texts assembled with physical actions and materials that move and recruit across digital networks. We draw upon contemporary research on imagination and literacies as social action, looking at the nexus of play and making as a site of collective meaning-making and cultural production, that both contests and reinscribes boundaries in digital cultures, resonates and ruptures dominant discourses, and mobilizes youth and materials. Play and making are literacies that run on peer culture passions, often centered on electronic games and digital play with popular media. But it is also important to note that it is not necessary for children to be online or to be using new technologies to be deeply entangled in imaginative labor as young participants in global flows and digital cultures. In the following sections, we survey emerging theories and research that show the impact on children's learning and participation in classrooms of playful literacies and practices of making within the collective imaginaries that circulate in and through childhoods.

### **Playful Literacies**

This term describes a range of semiotic practices for collaborative imagining that enact meanings with bodies or that animate toys, props, and other materials to virtually inhabit a shared pretend context. Defining play is difficult; it slips through attempts at definition but sociocultural research suggests a few criteria with relevance.

- Play is ambiguous (Sutton-Smith, 1997), masking its meanings through pretense so that meanings in a here-and-now reality are exchanged for imagined ones. For example, even very young children become adept at coordinating pretend and real action during mock fights, landing and dodging pretend blows by tempering their physical actions to avoid actually hurting one another (Fleer, 2014).
- Play is contingent, maintained by co-players' agreeing upon a set of "as if" conditions: Their actions are "only play" and have a different meaning inside

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the play frame (Bateson, 1955), and the meanings in play scenarios expire at the end of the session. In this way, play is "made fresh daily" (Wohlwend, Buchholz, Wessel Powell, & Coggin, 2013), as each play session opens the possibilities for new players, characters, and meanings to be negotiated and agreed upon.

- Play is voluntary and fun. Play is only play when players choose when to start and when to stop (King, 1992) and who can and cannot play (Paley, 1992). Play that is teacher-assigned, or otherwise co-opted, is not play.
- Play is a modally rich. The meanings in play need to be easily recognizable so that other players can instantly respond in the emerging pretense. Play meanings are constructed with physical actions, sound effects, character voices, invented dialogue, and movements of bodies and things across space.

We define playful literacies as meaning-making and participatory practices for pretense that players voluntarily engage in for their own purposes, in complex interactions situated in home, peer, school, media, and digital cultures (Wohlwend, 2013).

## **Practices of Making**

Everyday interactions with children highlight that making has always been a central component of childhood. From beaded necklaces to reconfigured cardboard boxes to paper airplanes, children utilize materials found in their everyday lives to produce artifacts and identities. But making has become "Making" in recent years with the emergence of the Maker Movement, moving the practice of artifact production into the national spotlight and into society's popular imagination (Dougherty, 2012; Peppler, Halverson, & Kafai, 2016a, 2016b).

In this chapter, we rely on Halverson and Sheridan's (2014) definition, broadly referring to the Maker Movement as a "growing number of people who are engaged in the creative production of artifacts in their daily lives and who find physical and digital forums to share their processes and products with others" (p. 496). One only needs to visit websites like Etsy, Instructables, and Pinterest to see the spirit of making and sharing alive in the world outside of Silicon Valley. What began with an emphasis on technological innovation and tools has grown to encompass a broader do-it-yourself ethos that is inclusive of digital technologies as well as hands-on making. Of particular importance to the Maker Movement is "makers" participating in communities of practice by sharing with and learning from other members (Hatch, 2013). Digital tools now allow these communities to emerge across contexts and times. Constructing making as a site of collective cultural production reflects

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notions of participatory culture, shifting the "focus of literacy [or making] from one of individual expression to community involvement" (Jenkins et al., 2009, p. 4).

The field of education is beginning to explore the potential of making as a productive learning engagement across grade levels, content areas, spaces, and materials, reaching across the "divide between formal and informal learning" (Halverson & Sheridan, 2014, p. 498). Drawing on the work of Papert (1980; Harel & Papert, 1991) and Dewey (1938/1963), the move to consider the role of the Maker Movement in education is undergirded by an approach to learning that places artifact production and sharing at the core of how people learn. Makerspaces for children and young people can now be found in schools, museums, libraries, churches, homes, and after-school spaces as well as virtual communities online. While the connection between writing, artifact production (making), and identity work has been of interest to literacy researchers for years (e.g., Leander, 2002; Rowsell & Pahl, 2007), global interest in the Maker Movement opens up new spaces for exploring the relationship between writing and making in the twenty-first century. This national enthusiasm for making is juxtaposed on a landscape of school surveillance and accountability. In this environment, making and play become a perquisite of after-school programs, museums, or affluent schools not on "low performance" state watch lists. It's crucial to understand what children are learning in these spaces, and what others are missing when play and making are relegated to enrichment, nice if there are time supplements to the literacy curriculum.

### **Making Beast Quest**

To illustrate the theories, research, tensions, and possibilities in the nexus of playful literacies and making, we unpack an excerpt of primary school filmmaking and set construction from one of our research studies (Wohlwend et al., 2013).

Sliding both of his hands underneath, six-year-old Monroe carefully lifts up what looks to be a piece of paper almost as long as he is tall. The paper is white with a slim strip of green paper attached to the bottom left corner. He balances the paper while taking cautious steps across the crowded classroom. With his eyes moving back and forth between the paper and the wider classroom, he locates some space near the back where this large piece of paper can fit on the floor. As he bends down to place the paper on the floor, his nearby friend Liam leans over to get a better look, "Oh! Are we allowed to work on that now?" Monroe promises that as soon as Liam is done working on his current project, "you can help me." Liam reluctantly returns to his own writing.

Monroe looks over the large paper project, referring to it as a "setup," and begins to work (and/or play and/or write and/or make, depending the

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perspective of the observer). Grabbing a blue marker, he adds color to the white paper, squiggly lines soon filling the space around the green strip. Evan, another friend, comes by to check out Monroe's setup. He stands over the paper while Monroe continues to color. "I'm not close to being done," Monroe says, with clear excitement rather than annoyance, "When I'm done, this is probably going to be as big as the library!" Evan continues to observe. Sensing his interest, Monroe puts a lid on the blue marker to offer his friend a short tour of his creation so far.

Upon closer view, this is much more than a large blank piece of paper decorated with squiggly blue lines; this is an oceanscape (thus the need for a blue marker) with three-dimensional elements scattered about made from paper, tape, and popsicle sticks. Monroe points at the slim strip of green paper in the corner, "That's Sepron he's a sea serpent." Grabbing one end of the green strip, he moves the paper around, creating the sense that the serpent is thrashing his head back and forth. "And that," grabbing a tangle of popsicle sticks sticking up vertically from the paper, "is a six-headed sea monster." Though stuck to the paper, Monroe tilts the creature to highlight the six heads. "It's from Beast Quest. I've read almost all the books in the series. I've seen the movies too, but now I'm more of a book person."

This scene unfolded in a kindergarten and first grade (K/1) mixed age classroom. As the teachers in this classroom explored the possibilities of creating digital media with young children, writing workshop became a kind of filmmaking playshop. Notebooks and folders were pushed aside to have space for puppetmaking, setmaking, and digital filmmaking. Children were encouraged to work with friends to draw film plans on storyboards and construct paper toys/puppets, scenery, and props in order to tell stories. Monroe initiated his Beast Quest project by constructing a large piece of paper. What looked like a single large piece of paper was actually nine sheets of letter-sized white paper (most rescued from the recycling bin) connected together with masking tape on each seam, creating a nearly two-foot by four-foot canvas. Instead of drawing scenery on a flat backdrop and then taping it to the wall, Monroe's plan was to keep the large paper on the floor and add three-dimensional elements to create an interactive setting. His inventive approach reflected elements of play mats or play rugs often found on the floor of children's bedrooms as well as plastic play sets (e.g., Fisher-Price Little People, Playmobil, Melissa & Doug) that line the shelves of preschools and playrooms. Such play sets offer an open-ended context in which children add toys or everyday objects to enact different scenes.

Monroe referred to his three-dimensional creation as a "setup" rather than using terms like "backdrop," "setting," or "scene," which were used more regularly by the other children and teachers in the classroom. Rather than a backdrop where the

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action all happens in front of or apart from the two-dimensional paper or canvas scene, a setup implies a set of three-dimensional materials (or equipment) that human actors interact with when engaging in an activity or practice. The term "setup" is also used specifically within the world of theatrical and cinematic productions. Monroe's use of the term "setup" offers insight into how he positioned his making and storying as practices that stood apart from the schooled version of a puppet show. He was thinking (and talking) like a producer of a theatrical or cinematic production rather than a writer in a primary classroom writing workshop. The details and intentionality of Monroe's creation can be easily overlooked by observers who see only wrinkled paper, scribbled marker, torn masking tape, and awkwardly positioned popsicle sticks. But for Monroe and his friends, these three-dimensional assemblages attached to the oceanscape base were forms of creative cultural production, bringing popular culture and children's collective imaginaries into the classroom. This wasn't just any ocean; this was the ocean from *Beast Quest*, a popular series of fantasy books for middle grade readers originally published in the UK and later picked up in the US. Described as "Narnia meets Pokemon via Potter," the books in the series are among the most borrowed from libraries in the UK (Flett, 2009). Though most of the *Beast Quest* book storylines are set on land, Monroe chose to remix or perhaps even tinker with the official set of storylines by selecting sea-living beasts from three different books and placing them in a single oceanscape.

### **From Tensions and Determinisms to Messiness and Blurring**

We situate Monroe's work/play in a filmmaking playshop on the uncomfortable edge of the possible and the problematic. This child's playful design work clearly situates him as a creative meaning-maker, but most educational interpretations of this classroom activity would likely ask, "Where's the writing?" As teachers invite making and play into classrooms as tools for imaginative meaning production, they are caught in the space between multiple practical tensions: making curricula relevant to modern childhoods, preparing children to pass high-stakes tests in school, and keeping children engaged as play migrates to digital playgrounds outside school. It is also important to note here that in the example provided Monroe was a strong "writer" and reader according to traditional K/1 school literacy standards. These labels imbue children with certain privileges in formal classroom spaces that likely contributed to the amount of space, time, and freedom that Monroe was given to create his oceanscape when no visible signs of writing were present.

We suggest that most literacy pedagogies position play and making as subordinate to writing. A range of educational approaches advocate play or making to provide instructional strategies for writing: to motivate children to write (Ray & Cleaveland, 2004), to offer experiential background in preparation for writing (Rowe, Fitch, &

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Bass, 2003), or as creative response to literature (Paley, 1997). These perspectives generally position Monroe's play and digital filmmaking as what happens before and/or after he engages in an actual literacy event (e.g., writing a script, reading a book, creating a storyboard). As literature response, the Beast Quest setup is reduced to an artistic reader response strategy that supports children in visualizing and comprehending a text that they've read. As a motivational or experiential activity, his making is framed by a prewriting brainstorming strategy: an engaging way for children to produce and evaluate writing ideas before capturing one of them with paper and pencil (Lysaker, Wheat, & Benson, 2010). In these approaches, some kind of authorizing print must be generated in order to justify play or making in the curriculum. In other words, "Where's the print?" serves as a litmus test for determining whether creative and productive digital meaning-making practices rise to the level of literacy.

The National Writing Project's (NWP) initial approach to bring making and writing together reflected this hierarchical divide. In their early summer workshops for teachers with MAKE Magazine, writing and making were treated as separate processes: Participants engaged in playfully making something (often with the use of technological tools) and then they engaged in writing about the make, often in the form of an informational/procedural text (Reed, 2011). A strength of this approach was that it offered writers an authentic purpose for sharing as a way to pass on expertise and knowledge within a larger community of makers. While this separation between writing and making certainly persists in research and in classrooms, in part because it offers a view of writing that is aligned with the Common Core State Standards, a growing group of NWP leaders and teachers is arguing for a more entangled approach, proposing a paradigm shift from writing and making to "writing/making" (Cantrill & Oh, 2016, p. 119). We see a similar shift in literacy research perspectives that view "writing as play" or "textual toys" (Dyson, 2003, p. 43) to reveal the depth of imaginative work in children's play and writing. Using this as a point of departure, we wonder: If Monroe never produced any print prewriting or written response to his Beast Quest setup, which theories and research support analysis of a young child's meaning-laden practices (coloring, cutting, taping, digital filming) as robust literacy practices?

### **Exploring Emerging Theories and Methods in Recent Literacy Research**

In the Beast Quest example, Monroe constructed a play world—a collective imaginary for millions of fans—for other players to inhabit. Although this scene was built of paper, tape, and popsicle sticks, its foundation was digital. In early childhood classrooms, where children cannot access the mobile phones or video game technologies they want to play, they make them with paper, crayons, and tape (Wohlwend, 2009). To characterize children's pretend digital props—their paper cell phones, cardboard box laptops, or in this case, Monroe's Beast Quest sea

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world—as text is too static and too flat a description for literacy practices that mold and mobilize materials, bodies, and artifacts. It is probably more accurate to describe the embodied scenes, material artifacts, and other meaning-products of play and making as contexts, rather than texts.

Monroe's ocean context was similar to a sandbox video game, a genre of open-ended games where players wander and explore a landscape. Sandboxes are interactive contexts rather than texts, digital environments with spatialized storylines for players to inhabit and navigate. By creating the Beast Quest sandbox, Monroe designed an imaginary, anticipating how others would explore and play in the constructed world. This is similar to the world-making in Minecraft, a highly popular sandbox construction game where children can build their own digital landscape for others to explore.

It is important to note that this production of an imaginary context was collaborative on multiple levels/times (Burnett & Bailey, 2015), in the immediate collaboration among multiple children sprawled on the floor drawing and coloring a very large set and in the imagined collaboration between these here-and-now makers who designed the ocean world and the anticipated players who would animate it during future play and filmmaking. Children also collaborated in a film crew, working together to handle digital cameras and animate particular portions of the paper landscape during a walkthrough narrated by Monroe.

In expanding the meaning-product from text to context, we broaden the territory for analysis. Interactions among bodies, artifacts, and the physical environment are suddenly foregrounded for consideration as literary elements. This aligns with a material turn in literacy studies that has renewed attention to the ways actions and things mean. Several literacy theories offer useful tools for unpacking the material meanings in children's making of play worlds. In this section, we sketch a few examples of theories that forefront materiality, with core constructs and promising directions in emerging research.

### **Mediated Discourse, Nexus of Practice, and Collective Cultural Imaginaries**

Mediated discourse analysis (MDA) theory (Scollon, 2001) examines the cultural production in collaborative imagining, play, and making. We use Medina and Wohlwend's (2014) model of multisited collective imaginaries to understand how players draw on popular media flows as they imagine otherwise with peers, negotiating and performing the imaginaries they share. During play, children both reproduce and rupture an imaginary's often tacit, cultural expectations for who can be a proper fan, player, or maker and how they should behave. These ways of belonging are enacted as social practices and identities in a nexus of practice (Scollon, 2001), a mesh of shared social practices and identity performances that

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mark actors as members who recognize one another through their actions-in-common (e.g., That's just how we do things here). In digital cultures, insider status enables and is marked by greater opportunities, such as knowledge of shortcuts, access to restricted locations, avatar tokens or badges, or increased number of followers. Such digital artifacts indicate membership status and allow other members to quickly see who belongs or who is liking, following, or otherwise demonstrating affiliation with a particular imaginary.

Critically, mediated discourse theory recognizes children's collective cultural imaginaries as sites of both engagement and contestation, where the agentic meets the problematic. Imaginaries depend upon widespread participation, moving through online distribution channels and offline contributions of imaginative labor and cultural production. Increasingly, young children engage imaginaries through the video games, action figures, films, and merchandise they view, buy, enact, and design. In this framing, *Beast Quest* is a book franchise and a children's imaginary, similar to films, video games, or toy franchises circulating through media imaginaries with a foundational set of characters and connecting narratives. Media imaginaries circulate identity expectations for players and characters, often with well-worn patterns of gender, racial, and ethnic inequity and income disparity that are both challenged and reproduced in children's play and making (Medina & Wohlwend, 2014).

Recent MDA research includes longitudinal ethnographic work that documented the complex nexus of making, playing, and writing produced in relation to a classroom playground game that existed as part of the community's cultural and historical imaginary (Buchholz, 2015a). When one community member decided to write down the rules in a shared Google Doc (after a decade of play governed by unwritten rules), the community entered contentious negotiations over how digital writing impacted the playing of the game.

### **Spatialized Literacies, Assemblage, and Place-Making**

Theories of spatialized literacies (Leander & Sheehy, 2004) enable analysis of the complexity of socio-material construction of space that laminates a there-and-then fantasy world onto a here-and-now classroom place, folding together layers of experienced and imagined space-times, as wrinkled as the paper *Beast Quest* map that carpeted the classroom floor. Just as paper is folded and tilted to add dimension to the waves to make the sea serpent appear to be rising out of the ocean, landscapes can pull in and layer previous space-times to authorize power relations among makers and their practices. In this framing, an assemblage of paper/tape/sticks/humans—while materially situated in a classroom—is a collaboratively produced site that anchors a social space and tethers space-times that are not fixed but fluid trajectories that can pulled in, smoothed out, or folded in



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on one another in children's play and making. The physical Beast Quest map is an anchoring "identity artifact" that can be wielded to recruit other makers and players into co-construction of physical artifact, its meanings, the identities of its makers, and a cohesive social space (Leander, 2002). The paper landscape grounds the children's identities as fans, filmmakers, and friends but also power relations among leaders and followers and trajectories across timespaces in the claim of a movie fan who has evolved into "more of a book person."

Recent spatial research on play and making in this area explores place-making as constructions of human-material-spatio-temporal assemblages that move along digital networks, in projects with virtual worlds (Burnett & Merchant, 2013) or stop-motion animation (Mills, 2010). Comber (2011) moves beyond "safe assignments" bounded by notebook pages and classroom walls to work with teachers and children to produce "culturally significant artifacts" and public spaces. This critical literacies work is conceptually and literally grounded in public sites in student's neighborhoods so that children engage in making that matters: "designing belonging spaces, advocating for their rights, producing community art works, researching the histories of their school community, and researching and planting sustainable gardens" (p. 346). Hollett (2015) uses spatialized literacies to understand the interactions among space, play, and making in a video game with a vast digital network and passionate fandom. Spatial analysis of teens' play with Minecraft, a sandbox construction video game, tracks how trajectories of affect, mobility, and place converge in player's place-making. Hollett's spatio-temporal mapping of teens' trajectories shows the value of recognizing a wandering, "wayfaring" model of learning where the end goal is place-making, rather than an accumulation of knowledge or a final destination point. In a study of after-school Minecraft play among preteens, Burnett and Bailey (2015) found collaborations to be fluid and fractional, as children negotiated overlapping texts, friendships, and communities across online and offline spaces.

### **Embodiment, Messiness, and Random Acts of Play**

Theories of embodiment acknowledge bodies as "whole experiential beings in motion, both inscribed and inscribing subjectivities," positing that they are "both a representation of self (a 'text') as well as a mode of creation in progress (a 'tool')" (Perry & Medina, 2011, p. 63). Rather than positioning the body as biological (naturalistic) and/or body as sign (semiotics), literacy scholars explore the experiential, relational, and sensational body as well as embodiment as cultural practice (Jones, 2013; Leander & Boldt, 2013; Perry & Medina, 2015). Research on the role of emotion/affect in relation to educational practice and research (Kuby, 2013; Lewis & Tierney, 2013; Zembylas & Schutz, 2016) moves analysis from mental states within an individual's mind and body to interactions between individuals through embodied changes that are physical and visceral. Leander and

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Rowe (2006) described these affective intensities as the "forces between bodies through their contact or collision rather than an expression of their qualities as things" (p. 433).

In the Beast Quest example, an embodiment perspective draws the researcher's gaze from a three-dimensional paper set and/or a transcript of the boys' talk to the moment-by-moment emergence of their bodies in relation to affect, sensation, and interrelation. Medina and Perry's (2014) emergent model for analyzing performative experiences in education, moves us from asking questions of the data based on representation (e.g., What is meant by the boys?) to asking: How are cultural norms, histories, and knowledge inscribed or disrupted as they work together on the Beast Quest set? What relationships and dynamics (affects and forces) can be observed between the boys' bodies, positions, material and immaterial contexts, instruction, and action (i.e., interrelations)? What and how are changes, events, and creations occurring? The transition from focusing on representations to interrelations and sensations situates the boys' bodies and Beast Quest play as meaningful in its own right. Popular cultural and media texts like Beast Quest also signify powerful emotional attachments for children (Marsh, 2005; Pugh, 2009). Recent work in the field has recognized play as an embodied approach that engages children in critical meaning making (Campano, Ngo, Low, & Jacobs, 2016; Thiel, 2015), as well as the possibilities of children using digital technologies to visually document moments of improvisational, dramatic play in the classroom (Buchholz, 2015b). In these examples, researchers and teachers situate children's bodies as tools for producing knowledge and thinking critically, reflecting a willingness to analytically engage in the messiness of moving bodies rather than allowing them to "fall to the cutting room floor" (Leander & Boldt, 2013, p. 32).

### **Implications for Educational Practice**

The question "Where's the print?" highlights a widening gulf between children's digitally mediated lives and the literacy experiences we offer in schools. To address this, we have moved from ethnographic stance to a more participatory one in our individual and collective work that moves toward social action with teachers and children. In doing this, we also respect the complexities teaching tightropes stretched across school realities, recognizing teachers as already-active mediators. Productive pathways are neither either/or choices nor careful sidesteps around issues. Recognizing that play moves, we make a conscious decision to attend to the productive affordances of blurring and muddying, understanding that mess often becomes learning in the chaotic relationships among play, making, and children's collective imaginaries, and that collaboration is not merely harmonious cooperation but also uncomfortable disruptions and contestations.

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The frustrating reality is that technological innovation is outpacing literacy research as well as classroom practice. Young children grow up swiping apps on phones, chatting virtually via computer games, building online virtual worlds, texting emoji-filled messages to family members, navigating complex websites, and recording and editing videos. Yet classroom writing instruction largely looks the same as it did decades ago. We may now see children on iPads and laptops during classroom writing instruction, but these devices are often used only for their word processing capabilities, simply alternative tools for producing alphabetic text on [virtual] paper, or even in more limiting ways as digital worksheets. The essential question then becomes how do we take the innovative and emergent research synthesized in this chapter, research that brings together strands of creative possibility: making, playing, and imagining, and ensure that children across diverse educational settings have access to a curriculum that positions them as makers and doers. If we begin to consider equitable access to play and making as social justice issues rather than extracurricular activities (see Campano et al.'s (2016) recent argument about "critical play"), then we, as researchers and educators, are challenged to consider how to move from theory-filled handbook chapters to the messiness of educational spaces filled with people and policies but also possibilities for participatory action.

### **Recommendations and Forward Thinking**

While much of the research on making so far has occurred in unofficial, outside of school environments (summer camps, after school programs, weekend workshops/events, etc.), moving forward there is a need to explore how these maker practices and spaces might inform official school pedagogies and curricula. In terms of classroom research, we see two productive pathways: (1) pre-service teacher education classes and (2) in-service teacher study groups, with both pathways recognizing teachers as makers of artifacts as well as makers of curriculum.

Classroom research necessitates positioning teachers (pre- and in-service) as knowledgeable, passionate, reflective professionals who bring expertise to reconceptualizing what it could look like for children to make, play, and imagine in official school spaces. In terms of the first pathway, working with preservice teachers, recent research in the field (e.g., Wohlwend, Scott, Deliman, & Kargin, in press) documented the transformative experience of university students whose literacy methods coursework included a Literacy Playshop (Wohlwend et al., 2013) on "toyhacking" and filmmaking. Crucially, preservice teachers, who had opportunities to use makerspace materials (e.g., art tools, saws, drills, glue guns) rather than just reading about the literacy potential of makerspaces, were surprised by the depth of their own learning and the engaging literacy resources in their remixes of toys, games, music, and viral videos. Making space for tinkering and

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making in teacher education coursework—and specifically in literacy methods courses—offers a productive direction for future practice and research.

The second pathway involves researchers partnering with in-service educators to explore questions of pedagogy, theory, and curriculum. Using a teacher study group model, researchers and practitioners can engage in action research, developing emergent curricula situated and responsive to the realities of classroom. In the Beast Quest example, Monroe's teachers participated in a study group that developed an emergent filmmaking curriculum for primary grades (Wohlwend et al., 2013). Though these teachers worked at a public charter school that arguably enjoyed more flexibility and professional support than many nearby neighborhood schools—especially those labeled as “low performing,” state standards and high stakes testing were still very real pressures. As part of this group, teachers discussed a range of questions from the theoretical (Should children have to write something down for it to be considered writing?) to the practical (In a classroom where space was limited, how do we organize and keep track of children's three-dimensional creations?). Teacher study groups offer one model with clear benefits to teachers and researchers from building local face-to-face relationships. Another model for working with in-service teachers leverages online tools and platforms to build an extensive community of practice across time and space. NWP's involvement in the annual summer Connected Learning Massive Online Open Collaboration (CLMOOC) (Smith, West-Puckett, Cantrill, & Zamora, 2016) merges making and writing with the aim of remixing and reinventing core Writing Project practices through a Connected Learning perspective (see <http://clmoocmb.educatorinnovator.org>). Organized around iterative “Make Cycles,” the CLMOOC invites educators of all kinds to make/compose, collaborate, and distribute multimediated artifacts as members of a participatory online community while collectively considering what this means for their work with children and youth.

The goal across both pathways should be to create ongoing support structures that provide opportunities for teachers to build community and to critically examine the possibilities and dilemmas of making in the classroom. Pooling collective resources, teachers “teach past contradictory institutional policies and free [themselves] from these ‘stuck places’” (Boldt, Salvio, & Taubman, 2009,

p. 15). Here, we push further, suggesting that teachers might also teach toward the messiness of an emergent curriculum, working with children in the nexus of play and making as a site of collective meaning-making and cultural production.

We suggest using the term “maker literacies” moving forward, describing collaborative, play-based, communicative practices that move beyond writing. Maker literacies include digital puppetry and e-textile puppetmaking (Buchholz,

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Shively, Peppler, & Wohlwend, 2014); mask-making, drama, animation, arts, digital filmmaking with child-produced props and artifacts (Honeyford & Boyd, 2015; Husbye & Vander Zanden, 2015; Wohlwend et al., 2013); stop-motion and cartoon animation (Mills, 2010; Simpson, Walsh, & Rowsell, 2013); toymaking and "toyhacking" (Wohlwend, Scott, Deliman, & Kargin, in press); costume-making, mask-making, and set construction (Doerr-Stevens et al., 2015; Kuby & Rucker, 2016); video editing and game development (Tekinbas, Gresalfi, Peppler, & Santo, 2014); coding/programming (Burke & Kafai, 2012); remixing (Honeyford & Boyd, 2015; Knobel & Lankshear, 2008); curation (Mihailidis & Cohen, 2013); and critical play (Campano et al., 2016; Comber, 2011; Doerr-Stevens et al., 2015). These are just a few examples to provide a glimpse of possibilities. We hope that research and practice will vigorously extend and expand this list of maker literacies and contribute to curricula that cuts across grade levels, content areas, and school spaces.

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